

## ***FORUM of PhD CANDIDATES***

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### **ECONOMY OF WESTERN SAHARA**

In this article I'd like to share some information about the economy of Western Sahara. The Western Sahara is a disputed mass of land which was formerly under the Spanish empire and was called Spanish Sahara. After the Spanish left it underwent a long and still continuing spell of dispute as to its governing body. In 1975 an international court of Justice granted Western Sahara, previously a Spanish Overseas Province, self-determination. Unfortunately, King Hassan of Morocco sent 350,000 people to take control of the territory.<sup>107</sup> Initially partitioned by Morocco and Mauritania, it came fully under Moroccan control in 1979. Morocco has yet to comply with UN demands for the territory's complete release.

There are a lot of argument are the locals can afford to pay their bills, if they can reach independence from Morocco. Some researcher say that without Moroccans money, the saharawis can't survive, but others say that they can manage it. I don't know the proper answer, but I try to give as many information as I could.

The country of Western Sahara lies to the north west of the African continent next to the northern region of the Atlantic Ocean. The countries that are neighbours of the Western Sahara are Mauritania, Algeria and Morocco. Being desert land, the Western Sahara is mostly sandy rocky and flat. However, there are places where the land ascends forming small hills and also some high mountain. Due to the scarcity of rainfall, the land is primarily not arable. The only arable land is the oases that dot the vast desert.<sup>108</sup>

Comprising mainly of desert, Western Sahara is arid in nature. The desert is dry and extremely hot, with little or no rainfall through long stretches of the year.<sup>109</sup> However, since Western Sahara also has a long coast line, dense fogs and heavy dew result from the incoming cold currents from the ocean. Given that the demography of the Western Sahara comprises mainly of arid and desert land, date palms and few other fruit types are to be found. However, even these are concentrated mainly in the oases. The rest of the flora is the desert variety of

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<sup>107</sup>Janos Besenyő: Western Sahara. pp. 86

<sup>108</sup>Eric Jensen: Western Sahara, Anatomy of a Stalemate. pp. 21.

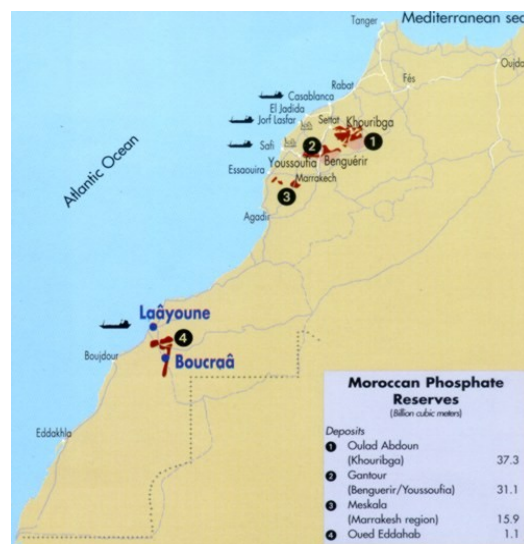
<sup>109</sup>H.T. Norris: The arab conquest of the Western Sahara. pp. 2

sparse shrubs and cactuses. The list of fauna in Western Sahara is made up of camels, sheep and goats.

In the North West corner of Africa phosphate deposits were discovered in the 1960s by the Spanish and their exploitation was launched by the Moroccan Government. These reserves provide one of the best qualities of phosphate of 80 % purity, and significant revenues to Morocco, which had been among the first phosphate producers and sellers of the world. After the USA it was Morocco where the largest amount of phosphate (22 million metric tons) was produced in 2002.<sup>110</sup> The mines in Western Sahara are important for Morocco also because the conveyor system between the mines and seaports makes transportation extremely cost effective. Phosphate from mines in Khourigba, Morocco, is transported to ports by rail making production more costly than that in Western Sahara.<sup>111</sup>

Mines in Morocco and Western Sahara are supervised by the OCP (Office Cherifien des Phosphates), which is responsible for everything from operating mines to market research and sale. However, 30 % of the proprietary rights of mines still belong to Spanish companies.<sup>112</sup> Annual phosphate production in the Sahara region is around 2 million metric tons only and the reserves allow continuous and profitable mining for several more decades.

The map below shows Moroccan and Saharan phosphate reserves.



*Source: Philip A. Szczesniak; The Mineral Industries of Morocco and Western Sahara, 2002.*

<sup>110</sup>Philip A. Szczesniak: The mineral industries of Morocco and Western Sahara (U.S. Geological Survey Minerals Yearbooks-2001. <http://minerals.usgs.gov/minerals/pubs/country/2001/momyb01.pdf> (downloaded: 12.12.2008.)

<sup>111</sup>John Damis: Conflict in Northwest Africa-The Western Sahara Dispute. pp. 50-79.

<sup>112</sup>Norrie Macqueen: United Nations Peacekeeping in Africa Since 1960. p. 237.

According to the latest research findings Western Sahara is extremely rich in minerals, particularly in iron ore, uranium, natural gas and oil.<sup>113</sup> Under seafloor of the coastal waters several American and French companies (Kerr-McGee and Total Fina Elf) conducted oil research and their findings indicate rich reserves off the coasts of Western Sahara.<sup>114</sup> However, oil production was impossible to launch because of the objections of Polisario and several other organisations. Companies expect the settlement of problems related to the territories and plan to start oil production only afterwards. Nevertheless, as a result of the lobby activities of several Norwegian human right organisations and those of economic factors Norwegian company Skagen Vest, financially involved in Kerr-McGee company sold its shares (2003) since it had no intention even to provide indirect support to Moroccan efforts aimed at oil production in the Sahara. The firm was the biggest Norwegian shareholder of the company through its 100,000 shares. In his press release one of the company CEOs Kristian Falnes explained the decision with the too risky policy of the American company. That is why his company sold the too risky shares with minimum profit. The current value of the shares is over 30 million Norwegian Crowns. Naturally, this did not shatter Kerr-McGee Company. Its employees continue working in Western Sahara in spite of the fact that exploitation of natural reserves in territories occupied by another state is prohibited by international law.<sup>115</sup>

One thing is for sure, the Norwegian Support Committee for Western Sahara (NSCWS) has threatened all companies attempting to conduct oil research or production in Western Sahara with Moroccan license with economic boycott and political measures (including negative press campaigns). This organisation has already inflicted fairly serious moral and economic damage to Norwegian TGS-NOPEC oil research company, which has made several research drills off the Western Sahara coast. Hundreds of newspaper articles were published, radio and TV reports were broadcast on the company generating a rather negative PR and inflicting economic damage.

To make the situation even more complex Polisario has also offered oil concessions to another consortium (British-Australian Fusion Oil&Gas) therefore only after the settlement of the rule over the disputed territory the winner of the competition for the oil production in the region can be announced.<sup>116</sup>

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<sup>113</sup> Claes Olsson: The Western Sahara Conflict. The Role of Natural Resources in Decolonization. p. 20.

<sup>114</sup> Claes Olsson: The Western Sahara Conflict. The Role of Natural Resources in Decolonization. p. 18.

<sup>115</sup> <http://www.arso.org/KMGBackgr.htm> (downloaded: 21.12.2008.)

<sup>116</sup> Claes Olsson: The Western Sahara Conflict. The Role of Natural Resources in Decolonization. p. 20.

Moreover, the coastal waters comprise one of the richest in fish areas in the world and fishing right is also disputed by the opposing parties.<sup>117</sup> Spanish and Moroccan ships were confiscated by Polisario guerrillas several times when those had no license from them. When in December 2002 a tanker sank at the Spanish coast a lot of Spanish fishermen lost their jobs due to water pollution. Both the Moroccan Government and the Polisario proposed the fishermen to use the territorial waters for fishing. Moroccans also have major revenues from fishing and processing sea fish.<sup>118</sup>

Fishing off the Sahara coast has always been a major industry off the Sahara coast line although fishing has been conducted in coastal waters.<sup>119</sup> Local fishermen using small fishing boats (dories) built by themselves usually went for 2-3 day long trips to catch shrimps, mussels, and various kinds of fish (sardine, mackerel, tuna, dolphin, etc.). Algae, kelps, and seaweeds were also harvested for catering and other purposes. In fact local people ventured to the ocean only in the spring and summer months while during the stormy winter period they did some other jobs.

Until 1914 the right to large scale fishing belonged to Spanish, French, and Portuguese companies and only after the first fish processing factory was founded by the Spanish was the catch bought from local fishermen who started exploring areas farther off the coast in order to have a better living. The real development began in 1927 when a shipyard was established by the Spanish, where 16-24 metre long trawlers were manufactured by mostly local workers. Those ships had no storage rooms yet that would have allowed to keep fish alive therefore those trawlers were unfit for longer fishing trips although the processing of the catch began right on board.

Not until the occupation of Western Sahara did local people develop fishing industry as they were happy with opportunities provided by the Spanish. Naturally, in the early 1960s more and more foreign fishing boats (Norwegian, Italian, Danish, French, etc.) started to arrive into the region although they were kept away from their privileged areas by the Spanish for a while.

Changes took place when Morocco occupied the territories and it was realised that one of the richest fisheries is off the Sahara coasts. At first Moroccan fishermen used only small boats (korb) without engine, in the shallow coastal waters.

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<sup>117</sup> Richard Lawles–Laila Monahan: War and Refugees. The Western Sahara Conflict. p. 71.

<sup>118</sup> Mohammed Baddyr–Sylvie Guenette: The Fisheries off the Atlantic Coast of Morocco 1950-1997. [http://www.seaaroundus.org/report/datasets/Morocco\\_Baddyr1.pdf](http://www.seaaroundus.org/report/datasets/Morocco_Baddyr1.pdf) (downloaded: 21.12.2008.)

<sup>119</sup> John Mercer: Spanish Sahara. pp. 134-135.

On a boat usually 12 fishermen worked using mostly dragnets and hook-traps. By the late 1970s the majority of boats had been equipped with 25HP engines, which made work much easier.

It is fairly difficult to provide exact figures on the number of boats. The ones below are from Moroccan registers:

3,600 boats	
1983	4,130 boats
1984	4,930 boats
1985	5,370 boats
1988	5,380 boats
1992	8,000 boats

Nearly 75 % of these boats were concentrated in the Atlantic coast and the remaining 25 % in the Mediterranean. In fact, the number of boats grew significantly in the 1980s when in several regions profitable octopus fishing (*Octopus vulgaris*) could be conducted. Plastic containers tied to concrete blocs are placed on the seafloor and these traps are checked every 2-3 days on the average. Such traps are planted in 100 metres from the coast line but some of them can be as far as 30 kilometres – from a few metres' depth to as much as 20 metres. Some ships regularly check nearly 3,000 octopus traps a week and make good profit although this is a seasonal job only. The same fishermen use lobster traps and several kilometre long hook traps planted along the routes of migratory fish schools. Collecting sponge and algae is also their business, which are sold either on local market places or to food companies (alga Agar-Agar).

Moroccan State fishing fleet has four types of vessels:<sup>120</sup>

Small fishing boats (doires, korb, etc.) catching mainly schools of sardine, sardella, or mackerel near the surface. The boats have 15-25-strong crews using 250-400-metre long and 40-50-metre deep nets. The boats start work in the afternoons or evenings and finish next morning.

In 1927 there were only 27 such boats under Moroccan flag operating between Tangier and El Jadida. After World War 2, however, rich fisheries were discovered in the region of Safi, Essaouira and Agadir making the number of fishing boats increase to 180 in a short time.

Local waters rapidly exhausted thus after the occupation of Western Sahara Moroccan fishermen relocated their centre of activities to the ports of Tan-Tan and Laayoune (El-Aaiun). There was a steady increase in the number

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<sup>120</sup> Mohammed Baddy: Introduction of pots as new fishing technique for *Octopus vulgaris* in Agadir. p. 96.

of trawlers and in 1975 the fleet counted 269 boats. In 1997, however, there were merely 323 boats of such types since the Government intended to reduce their number and supported the commissioning of modern boats.

The ageing small boat fleet is some 40 years old and since shipyards manufacturing such vessels were closed down there was only repair and maintenance work done on those boats.

In the second type fall more up-to-date motor vessels which use trawl nets along the coastline. On the boats 10-15-strong crews work starting from around 2 in the morning and returning to port late afternoon. Some of these boats are capable of cruising as long as a week and is equipped with freezers to store the catch. However, such boats can only operate over sandy seafloor and lower their nets twice a day (each takes 3-5 hours). Currently there are 331 such boats in the Moroccan fishing fleet 80 % of which operate off the Sahara coasts.

This is the group of small (8-10-metre-long) motor boats capable of spending about 3 days in the open sea. These boats were first built in the 1930s and they were designed for catching fish farther off the coast line. Due to specific requirements the boats with 13-14-strong crews are equipped with freezers allowing such boats to keep their catch fresh. Currently the Moroccan fishing fleet has 920 boats 96 % of which operate along the Atlantic coast line (primarily off the Sahara coast).

In the fourth (mixed) category fall all those boats that use both types of nets. Currently the Moroccan fishing fleet has 56 of such boats.

Officially the state-run fishing fleet was established as late as 1972 and 4 big fishing ships were stationed in the port of Las Palmas. After former Spanish Sahara with its fish-rich coastal waters were taken by Morocco the Government submitted its first project on exploiting fisheries. In the framework of the programme fishermen were provided long-term subsidised loans to assist them with buying boats and foreign ships were banned from a 120-kilometre-wide zone off the coast.<sup>121</sup>

In 1981 fishing was one of the top industries of Moroccan economy therefore Ministry of Fishing Industry was established and plans to build new seaports and food factories for processing fish in the Sahara region was approved.<sup>122</sup>

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<sup>121</sup> Mohammed Baddyr-Sylvie Guenette: The Fisheries off the Atlantic Coast of Morocco 1950-1997 [http://www.seaaroundus.org/report/datasets/Morocco\\_Baddyr1.pdf](http://www.seaaroundus.org/report/datasets/Morocco_Baddyr1.pdf) (downloaded: 21.12.2008.)

<sup>122</sup> Claes Olsson: The Western Sahara Conflict, The Role of Natural Resources in Decolonization. pp. 17-18.

The Moroccan fishing fleet stationed mostly in foreign ports (Las Palmas, Abidjan and Dakar) between 1972 and 1986 then in reconstructed seaports of Agadir, Tan-tan, and Laayoun.

Most of the catch of the fleet (87 %) comes from the Sahara region during the 4-6-week-long fishing season. Most of these ships are modern, equipped with radar, sonar, freezers, and other technologies allowing continuous fishing and processing of catch simultaneously.

Most of the catch consists of small, so called mass fish (sardine, sardella, mackerel, etc.). In 1950 the annual Moroccan catch was only 110,800 tons and later it increased to 485,500 tons a year. 85 % of small fish is sardine (*Sardinia pilchardus*) and mackerel is the second most frequent type. 90 % of the mackerel catch is made up by common mackerel (*Scomber japonicus*) while the amount of Atlantic mackerel (*Scomber scombrus*) is insignificant since its habitats are located more to the south.

The amount of catch significantly increased: while in the 1960s it was merely 4,100 tons a year this amount grew to 14,000 tons per year in the 1990s. The amount of various kinds of octopus was some 24,000 tons a year.<sup>123</sup>

Also 12,000 tons of different sorts of lobsters, shrimp, and mussels (black mussel, oyster, ec.) were caught and sold annually.

European Community and other countries lobby in Morocco for licences of fishing in the region.<sup>124</sup> Exercising fishing rights is a delicate issue and triggered several conflicts between Moroccan authorities and ships under foreign flags. Thanks to their more advanced technology foreign ships return home with more catch than locals. This becomes clear when analysing data e.g. those in 1990 when Moroccan ships caught 402,200 tons while foreign fishermen caught 998,400 tons. These are only the official statistics, which do not include illegal fishing, which is very frequent in the region.<sup>125</sup> Spanish fishing fleets caught 255,000 tons of fish making up 65 % of the Moroccan catch. This may be the cause why fishing in territorial waters was limited or banned for Spanish ships several times by the Moroccan Government. Fishing boats violating the prohibition were forced to local ports, where they were confiscated.<sup>126</sup>

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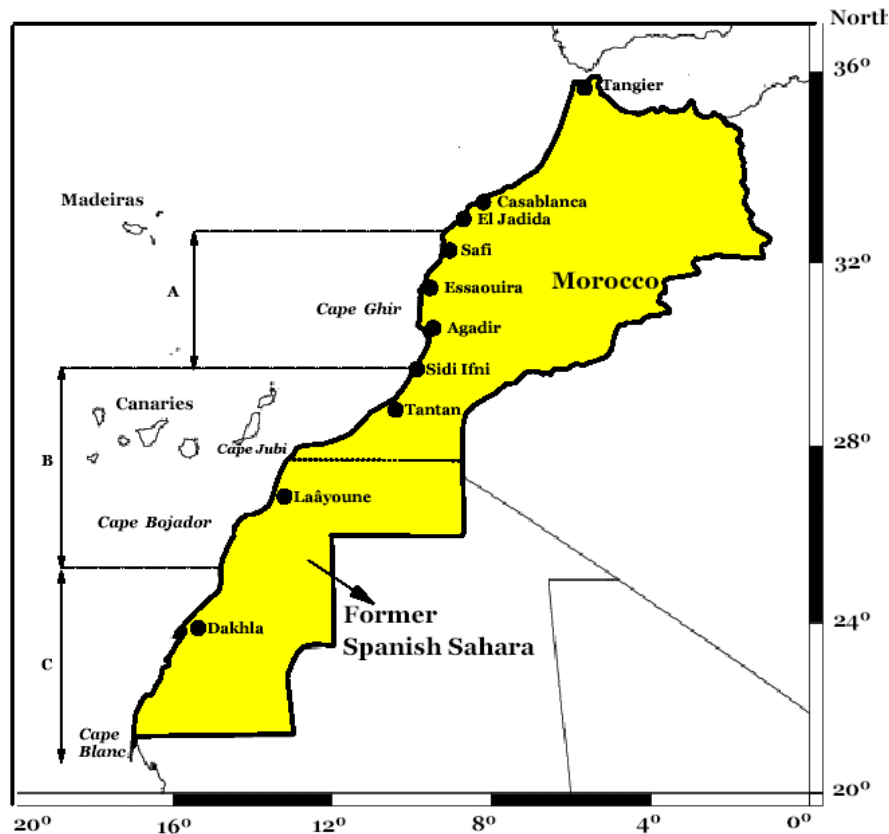
<sup>123</sup> Mohammed Baddy: Introduction of pots as new fishing technique for *Octopus vulgaris* in Agadir. pp. 96-97.

<sup>124</sup> F. Ugboaja Ohaegbulam: Ethnical Issues in U.S. Policy on the Western Sahara Conflict. p. 99.

<sup>125</sup> Claes Olsson: The Western Sahara Conflict, The Role of Natural Resources in Decolonization. pp. 17-18.

<sup>126</sup> Jose Maria Magone: Contemporary Spanish Politics. p. 223.

The following figure shows fisheries off the Moroccan coast lines and seaports.



*Source: Mohammed Baddyr-Sylvie Guenette; The Fisheries off the Atlantic coast of Morocco 1950-1997*

Naturally, it is not only Moroccan fishermen who do fishing in these waters as both the Besides fishing industry sea transportation, including seaports (Layoune, Dakhla), was also top priority in the development policy, partly in the framework of agreements with Senegal. The heads of the two governments – Mohamed VI and President of Senegal Abdoulaye Wade – concluded an agreement at the French-Africa Summit in Paris in February 2002 on the establishment of a new transportation company.

Since there are grave ethnic conflicts between Senegal and Mauritania, which was regarded as a supporter of Polisario in the region, triggering several armed clashes Moroccans provide a comprehensive economic and political support to Senegal.<sup>127</sup> A clear sign of economic relations is the fact that after Senegalese air company Air Afrique had gone bankrupt, new national air company Air Senegal was established with Moroccan support. Royal Air Maroc is the majority owner of the company (51 %). Common projects include the building of a Dakar– Morocco highway across occupied Sahara region. By now Senegal has become the most loyal ally of the Moroccan Government in Africa,

<sup>127</sup> Toby Shelley: Endgame in the Western Sahara. p. 42.



which is very important for Morocco as the majority of Western African countries recognised SADR, the Government of Western Sahara, created by Polisario.<sup>128</sup>

Windy and barren desert may seem valueless nevertheless Moroccan Government and the University of Kassel, Germany, elaborated a joint project on the utilisation of wind energy. Scientists have discovered that Southern Morocco – including occupied Western Sahara regions – is the windiest area of the world. Since the majority of the relatively small population is city dweller the population density is extremely low and there cannot be any obstacles to constructing wind farms as opposed to Europe, where higher population density causes various problems (opposition of local population, etc.).

The project was named “Desert Wind”. According to University of Kassel Mr Gregor Czisch wind energy is a potential source of energy for the next generation and in the Sahara energy can be produced at a much lower price than the energy purchase price in Germany. At Sahara wind farms energy can be produced at mere 4.5 cents per kilowatt while the cheapest option in Germany is at 6.5 cents a kilowatt. Moroccan scientist Khalid Benhamou, involved in the project states that along the roughly 2,000 km long coastline some 2-4 Megawatts of energy can be produced on a square kilometre. Accordingly, the annual production on average can be more than 1,000 terrawatts which is half of the EU energy consumption. The implementation of the project would begin in Tarfaya but in Western Sahara wind farms could be constructed only after the final settlement of disputed Sahara territories. The programme can offer extremely tempting economic opportunities for the participants.<sup>129</sup>

Another seemingly bizarre but very profitable field of economy is the area of sand dunes in some 250 kilometres from Tarfaya. However strange it may seem, Spanish Government pays good money for the fine sand delivered from this area to the beaches of the Canary Islands. Several ships leave the port of Laayoune and sell their loads, which are valueless for the local people, to companies in tourist industry.<sup>130</sup>

Agriculture in the area is minimal: arable lands and oases, where fruit (dates) and some vegetable production is dominant, make up a mere 5 %. Another 19 % of the region is suitable for pasturage of camels, sheep, and goats, done mainly by nomads.<sup>131</sup>

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<sup>128</sup> [www.globalpolicy.org/security/issues/wsahara](http://www.globalpolicy.org/security/issues/wsahara)

<sup>129</sup> [http://www.saharawind.com/index.php?option=com\\_frontpage&Itemid=1](http://www.saharawind.com/index.php?option=com_frontpage&Itemid=1) (downloaded: 21.12.2008.)

<sup>130</sup> Toby Shelley: *Endgame in the Western Sahara*. p. 78.

<sup>131</sup> Henri N. Le Houéron; *Pastoralism* (presentation at the scientific conference *Studies of the Interaction of Climate and Society*, 2000)

Another significant part of the population is involved in handcraft and home industry. Using semi-precious stones and remains of stones of animals beautiful jewellery is made which is sold mainly to tourists. Silverworks and leather-craft are also traditional trades. Although living standards in the occupied territories are well below that in Morocco still it is higher than of people in Polisario-controlled territories. Nowadays tourism began to develop, however, due to the unsettled status quo organised tourism industry could emerge only in the territories occupied by Morocco. Nevertheless, some “adventurers” take the risk to venture into the so called “free territories”.<sup>132</sup> The majority of foreign investors come from France and Spain because both historic and economic relations between these firms and Western Sahara remained.

In accordance with the provisions of the current ceasefire agreement Morocco is not allowed to build roads or exploit the natural resources of the country until the final settlement of the status quo.<sup>133</sup>

This provision of the agreement is, however, frequently ignored – for example in the Guerguerat region near the Mauritanian border a road was built with the involvement of the armed forces and the construction of fishing villages is also in progress along the Western Sahara coastline.<sup>134</sup> To date 6 such villages had been built and in the 2002 regional budget resources for another 6 settlements were earmarked.

The reason is that in the seas rich in fish some 160,000 Moroccan fishermen work temporarily who stay on the Western Sahara coast during the fishing season as they are unable to make a living in Morocco.<sup>135</sup> In spite of their merely USD 7 a day wage they support their families in Morocco. Besides the existing fish processing factories (Layoune and Dakhla) operating at full capacity further factories are planned to be built.<sup>136</sup>

As the above data clearly indicate Morocco gained significant economic opportunities through the occupation of Western Sahara. For this and some other reasons (nationalism, Berber separatist movements, etc.) it does not intend to return the area to the SADR. Therefore local inhabitants can expect only partial autonomy within Morocco as the Moroccan armed forces will never withdraw from Western Sahara voluntarily.<sup>137</sup>

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<sup>132</sup> Toby Shelley: *Endgame in the Western Sahara*. p. 94.

<sup>133</sup> United Nations Security Council Document S-2002-161 (12.02.2002.).  
<http://www.undemocracy.com/S-2002-161.pdf> (downloaded:03.12.2008.)

<sup>134</sup> Claes Olsson: *The Western Sahara Conflict. The Role of Natural Resources in Decolonization*. p. 20.

<sup>135</sup> Toby Shelley: *Endgame in the Western Sahara*. p. 75.

<sup>136</sup> Toby Shelley: *Endgame in the Western Sahara*. pp. 92-93.

<sup>137</sup> [www.globalpolicy.org/security/issues/wsahara](http://www.globalpolicy.org/security/issues/wsahara)